

CLAIMS

We claim:

1. A method of creating an anastomosis, comprising:
advancing a leading portion of a fitting into an opening in a host vessel wall;
advancing a rear portion of a fitting in a deflected position into said opening,
said deflected position occurring by torsional displacement of said rear portion about
at least two sections of said fitting; and
forming a connection between said host vessel and a graft upon return of said
distal portion from its deflected position to a position contacting a wall of said host
vessel.
2. The method of claim 1 further comprising forming the opening at a
location along the host vessel wall prior to advancing the leading portion of the
fitting.
3. The method of claim 2 wherein forming the opening comprises forming a
circular or oval opening through the host vessel wall.
4. The method of claim 1 wherein the leading portion dilates the opening
while being advanced.
5. The method of claim 1 wherein prior to advancing the rear portion,
positioning the rear portion into the deflected position by rotating the rear portion
about the at least two sections.

6. The method of claim 5 wherein rotating the rear portion configures the fitting into a profile adapted for introduction into the opening.
7. The method of claim 1 further comprising releasing the rear portion within a lumen defined within the host vessel prior to forming the connection.
8. The method of claim 1 wherein forming the connection between the host vessel and the graft defines an angle ranging from 20° to 70° between the host vessel and the graft.
9. The method of claim 1 wherein the leading portion and the rear portion are positioned in line with the host vessel when contacting the wall of the host vessel.
10. The method of claim 1 wherein forming the connection between the host vessel and the graft further comprises positioning a collar over a portion of the graft such that the portion of graft is urged against the fitting.
11. The method of claim 10 wherein the collar is resiliently biased.
12. The method of claim 10 further comprising locking the collar against the fitting via a plurality of interlocking member in corresponding engagement with the fitting.
13. The method of claim 10 wherein positioning the collar further comprises compressing a second portion of the graft against the host vessel.

14. The method of claim 1 wherein prior to advancing the leading portion of the fitting, configuring the graft such that a portion of graft material overlaps the host vessel upon forming the connection between the host vessel and the graft.

15. The method of claim 1 further comprising inspecting the connection to detect for leakage.

16. The method of claim 1 further comprising adjusting the fitting or graft.

17. The method of claim 1 further comprising additionally securing the connection between the host vessel and the graft.

18. The method of claim 17 wherein additionally securing the connection comprises a method selected from the group consisting of packing, applying adhesive, and suturing.